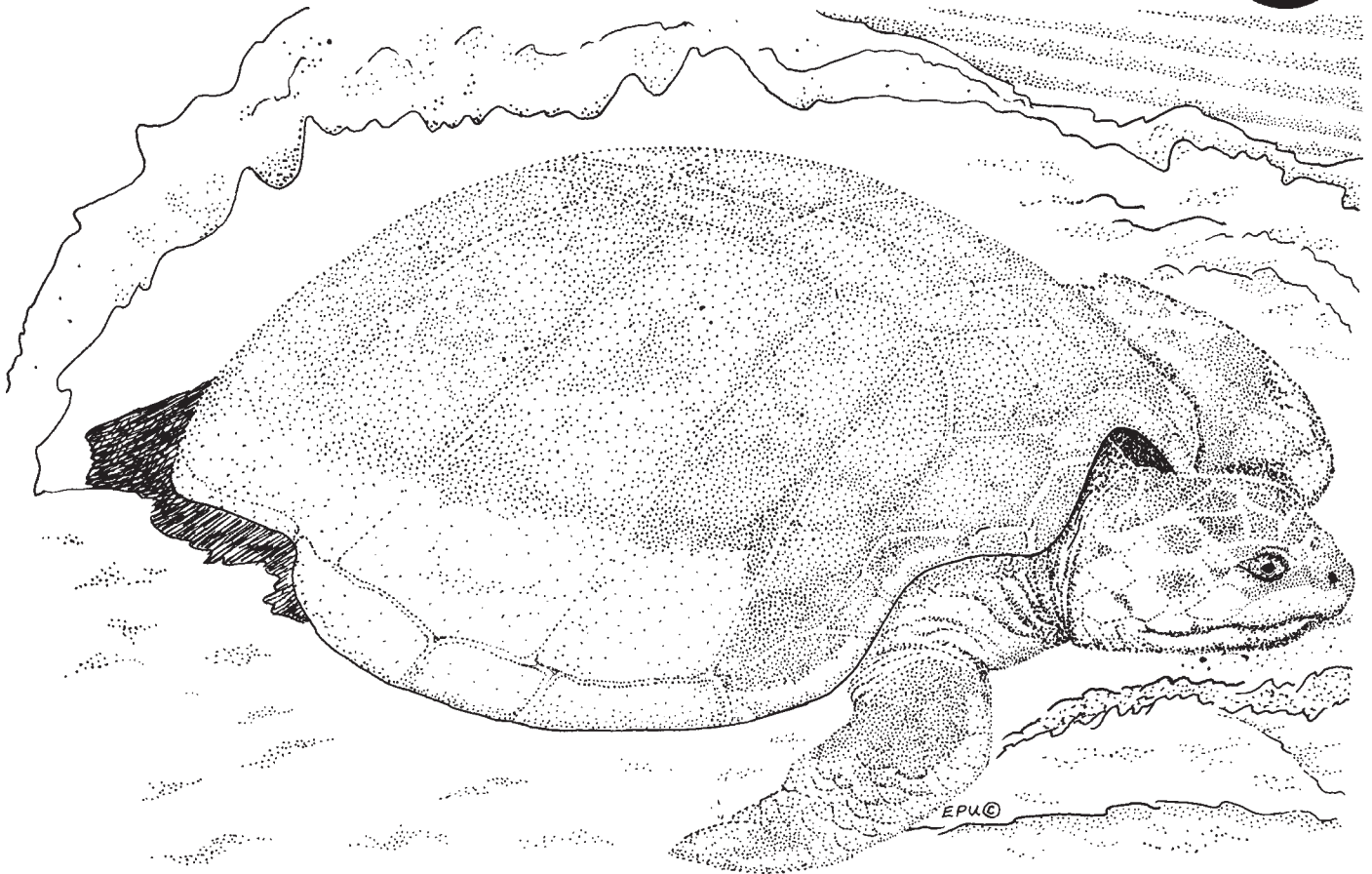


# Growing WILD

Utah's Project WILD Newsletter

Fall 1991



## ***What Lies Ahead for the Kemp's Ridleys?***

*(Note from Utah's Project WILD Coordinators: Last fall, while we were searching for supplementary materials for TURTLE HURDLES, we learned about an opportunity to work as volunteers at the primary nesting beach for the Kemp's ridley sea turtles. Jack Woody, U.S. Fish & Wildlife Service, helped us to make arrangements for a two-week trip into eastern Mexico to Rancho Nuevo, about 200 miles south of Brownsville, Texas. A brief sketch of our experiences follows.)*

For the turtles, it began over 150 million years ago. For us it began on April 29, 1991. Within an hour of arriving at a remote beach along Mexico's Gulf coast, we were kneeling in the sand and watching a female Kemp's ridley complete a cycle that has repeated itself for generations.

Here she was, her shell more gray than the green shells of younger turtles, throwing sand into the air with her hind flippers as she dug the nest for the approximately 100 eggs she would soon lay. We stayed behind her at this point, careful not to disturb her. Soon, her synchronized digging stopped, and she began methodically dropping her white, leathery-shelled eggs, the size of ping-pong balls, into the hole. It's then that we began to know this turtle -- and the others like her.

*(continued on next page)*

Once she begins actually laying her eggs, it's unlikely that anything will disturb her. So we sat down close to her. We watched her stretch her neck and lift her head upward, and we listened to her sigh. We saw the salty, sandy "tears" which streaked her face below her eyes. We touched her, and we read the metal tag on her left front flipper. She began to cover her nest with her hind flippers, rocking her whole body back and forth to pack the sand. She turned slightly, continuing to rock, covering the nest in an attempt to disguise the nest and protect the eggs.

Then she turned to the sea just as she did when she was a hatchling. She crawled and dragged her 90-pound body across the sand to the ocean. We watched her, walking behind her as the first wave washed over her. In the next wave, she disappeared. This is how it began for us. Over the next ten days, we had the extraordinary opportunity to work with these most endangered of all sea turtles, the Kemp's ridleys.

Unlimited harvesting of Kemp's ridley sea turtles and their eggs from their nesting beach has led to the drastic decline of this species. In the 1940's there would be 40,000 female ridleys nesting in one day (called an "arribada") on this isolated 20-mile stretch of beach in Mexico. Now there are fewer than 500 female ridleys that will nest during the entire season. Because the population has suffered such a serious reduction of numbers, the loss of any turtles from the population now seriously threatens the species. Now that the nesting beach is completely protected, the major threat to the turtles is accidental capture and drowning in shrimp trawling nets. Consequently, there are now governmental regulations which require shrimp boats to use nets with "Turtle Excluder Devices." These specially designed nets allow captured turtles to escape unharmed, and, fortunately, many of the people who fish for shrimp are now beginning to comply with these regulations.

The biologists whom we met in Mexico taught us many things. They taught us about the turtles and about the dedicated people working to save them. They taught us how they measure, tag and record all the turtles seen on the beach. We were lucky to be able to help them search the Rancho Nuevo beach for nesting turtles; we were lucky to be with them for two arribadas, one with 90 turtles and one with 130 turtles. We helped remove the eggs from the nests which the turtles had so carefully dug, and we reburied those eggs in nests that we dug in a fenced-in portion of the beach, close to camp and safe from skunks, coyotes and poachers. **All of these people told us the same thing -- how important education is to saving the turtles.**

We hope that someday we can stand on the beach at Rancho Nuevo and watch the Kemp's ridleys disappear in the ocean with the absolute knowledge that we will see them return. We hope that the conservation efforts in Mexico and the United States will prove that we can save a seriously endangered species. Working together and educating our young people about sea turtles may prove to be one of the most valuable tools in saving the Kemp's ridleys -- and in helping us understand our responsibility to world environments.

*In this issue of Growing WILD, we offer some unique resources for teaching about the ocean environment and sea turtles. We also have enclosed a new issue of Nature's Call, written for 4-6 grades, focusing on the Kemp's ridleys. We encourage you to photocopy it as needed. A limited number of classroom sets are available and may be obtained by calling the Project WILD Office (801 538-4719).*

# Sea Turtles of the World

--a resource file

This new resource file contains extensive background information for teaching about sea turtles. The materials that we have included may be used with the Project WILD activity TURTLE HURDLES and may also be used to teach several of the science core objectives, especially those focusing on factors limiting or changing animal populations, endangered species and conservation practices. The resource file also provides supplementary reference for the enclosed issue of *Nature's Call*. You may check out the file by calling the Project WILD Office (538-4720).

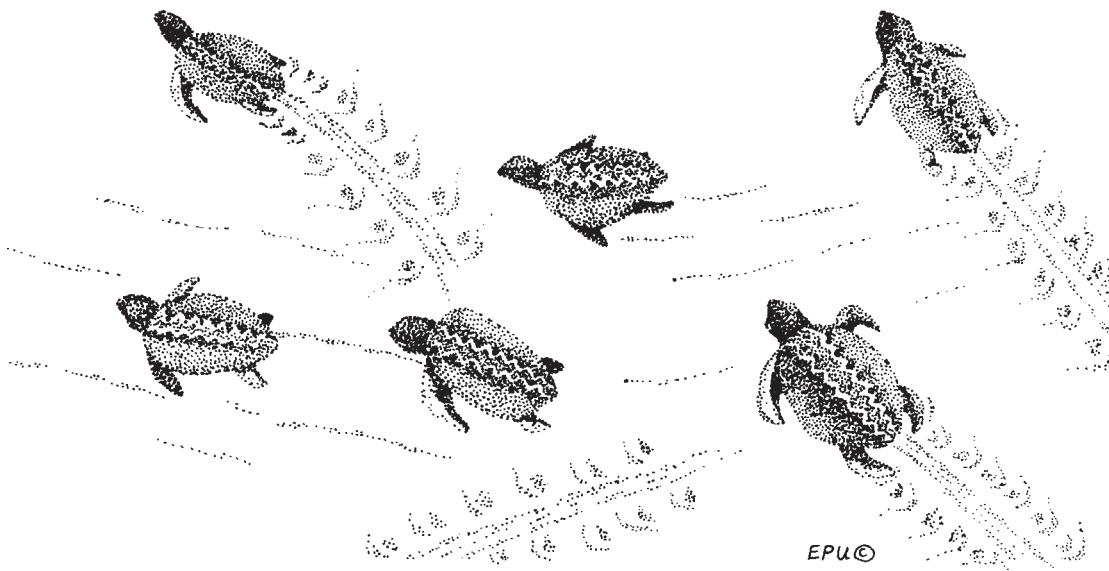
The file includes:

1. Video, "Sea Turtles: Ancient Nomads," with Teacher's Guide, National Audubon Society Specials, 60 minutes, 1989.
2. The Great Ridley Rescue, Pamela Phillips, 1989.
3. "Sea Turtles," a coloring book in English and Spanish, Center for Marine Conservation, 1981. (Also available for purchase through the Project WILD Office for \$1.)
4. "The Status of Kemp's Ridley," Center for Marine Conservation, 1989.
5. Annual Reports on the Republic of Mexico and United States Conservation Efforts on Behalf of Kemp's Ridleys at Rancho Nuevo, Mexico, 1988 and 1989.
6. "Florida's Sea Turtles," Florida Power & Light Company, 1987.
7. Poster, "Sea Turtles of the World," U.S. Fish & Wildlife Service.
8. "On the Brink of Extinction," *Nature's Call*, Utah's Project WILD, 1991.
9. "Diving Into Oceans" and "Endangered Species: Wild & Rare," *NatureScope*.

Also available to check out are two slide programs:

"America's Sea Turtles," slides and tape, U.S. Fish & Wildlife Service, 1986.

"Kemp's Ridleys at Rancho Nuevo," slides and script, describing life history of Kemp's ridleys with emphasis on nesting behavior at Rancho Nuevo, Mexico; photos and script by Brenda Schussman and Daphne Sewing, 1991.



# Hurdling Turtle Hurdles

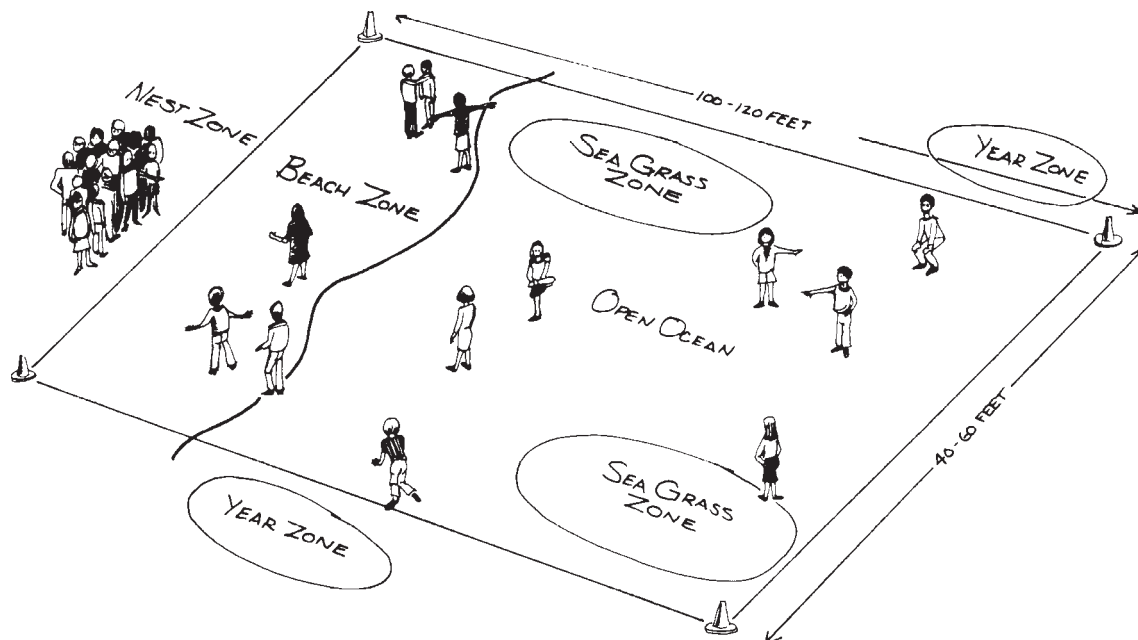
The Kids' Activity Newsletter accompanying this *Growing WILD* issue is a great supplement or extension to the activity TURTLE HURDLES (Project WILD Aquatic Activity Guide, page 153). In conducting TURTLE HURDLES with students and teachers, we've simplified the procedure to make the activity a little more "user friendly." Our modifications are outlined below.

## Materials:

- Rope or string to separate beach area from the ocean
- Jump ropes or hoops to create sea grass (safe) zones
- Small plastic or paper bag for each student in the class
- Identity signs for each predator or limiting factor
- Clothes pins to pin identity signs to students' clothing
- Poker chips (placed in the year zones)
- Beans

## Procedure:

1. Set up activity area as shown. Give each student in the class a paper or plastic bag.



**2. Divide the class into two groups of equal size:**

**Group 1 - TURTLES**

Have each student count out 50 beans and place the beans in his/her plastic bag. The beans represent a population of turtles that hatch in a single nest.

**Group 2 - PREDATORS/LIMITING FACTORS**

Divide this group evenly into two smaller groups. Use clothes pins to pin appropriate identity sign to students' clothing.

**Group A:** On-land predators (raccoons, dogs, ghost crabs, foxes, gulls) and limiting factors (dune buggies, human egg collectors, shoreline development).

**Group B:** In-sea predators (sharks, killer whales) and limiting factors (entanglement in fishing gear, eating plastic litter, illegal killing by humans).

**3. Walk the class through the activity, explaining the rules as follows:**

A. Turtles must hatch, cross the beach and spend 10 years in the open sea. The time in the ocean is simulated by the turtle running back and forth between the year zones, picking up poker chips one at a time until a total of five chips is collected. Each chip represents two years successfully survived in the ocean. After five chips are collected, the turtle returns to the nest area to reproduce.

B. The turtles must survive the limiting factors they encounter on the beach and in the ocean. If tagged by a limiting factor, the turtle counts out ten beans and places them in the limiting factor's plastic bag.

C. The sea grass areas in the ocean are places where the turtles are safe from limiting factors. The teacher may set a time limit for how long a turtle may rest in a sea grass zone. Option: The teacher may eliminate the safe zones after the turtles have been in the ocean for awhile. This simulates the turtles growing too big to hide in the sea grass.

D. Students who are limiting factors must obey the following rules:

- They cannot tag the same turtle twice in a row.
- They cannot tag turtles that are counting out beans to another limiting factor.
- They must stay four steps away from any turtle that is finishing off a payment to another limiting factor.

E. Any turtle that loses all 50 beans is dead and must go to the beach zone and become a condominium. If the condominiums (sitting side by side) eventually block access to the nesting beach, the remaining turtles die without reproducing and starting the next cycle.

F. The activity is over when all the turtles have returned to the nest area or are dead.

**4. Review the rules, making sure students understand their roles, and conduct the activity!**

**5. Close the activity with a discussion of the results; suggestions for closure are outlined on page 156 in the Aquatic Activity Guide.**

## "Endangered means there is still time, but extinction is forever."

--from "Why Save Endangered Species?" by U.S. Fish & Wildlife Service

*The U.S. Fish & Wildlife Service reports that since the pilgrims landed at Plymouth Rock in 1620, over 500 species, subspecies and varieties of our nation's plants and animals have become extinct. The rate of species loss worldwide continues to increase due largely to environmental degradation, pollution, introduction of non-native species, and human exploitation. Some scientists fear that in the next 30 years an average of 100 plant and animals species could become extinct every day.*

During the year, we receive many calls from teachers and scout leaders asking for information about endangered species. In response to those requests, we have prepared a resource file with materials focusing on endangered species. The file contains a variety of resources which may supplement several Project WILD activities, including HERE TODAY, GONE TOMORROW; PLANTING ANIMALS; RARE BIRD EGGS FOR SALE; DEADLY LINKS; PLASTIC JELLYFISH; TURTLE HURDLES; WHEN A WHALE IS A RIGHT and WHALE OF A TAIL. You may check out this resource file through the Project WILD Office (538-4720).

The resource file contains:

1. "Endangered Species: Wild & Rare," *NatureScope*.
2. "Why Save Endangered Species?" by U.S. Fish & Wildlife Service.
3. "Endangered Species," *Post Register*, Idaho Falls, Idaho.
4. "Endangered Animals," *ZooBooks*.
5. Endangered Species, National Wildlife Federation.
6. "Native Utah Wildlife Species of Special Concern," Utah Division of Wildlife Resources.
7. "Rare and Endangered Species," Activities Guide/Poster, The Nature Conservancy, with correlation to Project WILD activities.

*If you're interested in obtaining more information about endangered species, we suggest you check your library for The Official World Wildlife Fund Guide to Endangered Species of North America, Volumes 1 & 2, Beacham Publishing, Inc., Washington, D. C., 1990.*

## Are There Sea Turtles in Utah?

Well, you're right! There are no sea turtles in Utah. There are, however, four species of turtles that **can** be found in Utah, and one has recently been listed as a threatened species by the U.S. Fish & Wildlife Service. Utah's turtles include:

1. **Mojave desert tortoise**, which is the only turtle species native to Utah. This species is found only in the warm desert of Washington County. Predation, habitat destruction, years of collection for pets, and a recent outbreak of a fatal respiratory disease have reduced population numbers so drastically that it has been listed as threatened.
2. **spiny-softshell turtles**, found in small numbers in lakes and rivers in extreme southwestern Utah. They have leathery shells, aggressive tempers, and appetites for fish.
3. **painted turtles**, brightly marked, found in a few isolated locations in northern Utah.
4. **snapping turtles**, capable of growing quite large, occasionally seen near Utah Lake.

## West Indian Manatee -- Endangered Marine Mammal

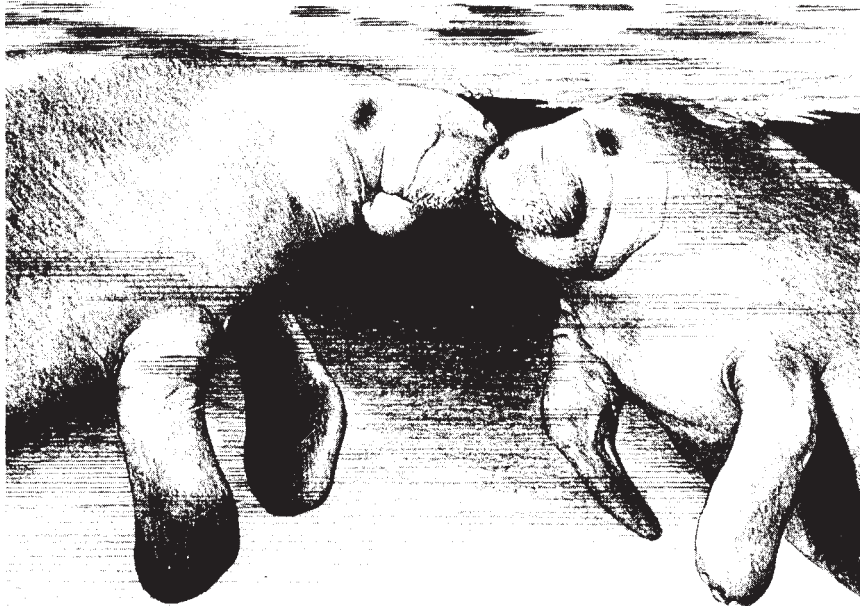
Another endangered animal is the manatee. This marine mammal inhabits coastal ecosystems, slow-moving rivers, bays and estuaries. There are four species of manatees alive today. An additional species, the Steller's sea cow, was hunted to extinction in the arctic waters of the Bering Strait in 1768. The West Indian manatee has captured the interest of people throughout the United States, and Florida has designated the manatee as that state's aquatic mammal. The manatee has become another symbol of human concern for endangered species.

**There is now available an excellent, free teaching booklet, entitled "Manatees -- an Educator's Guide," from Save the Manatee Club, 500 N. Maitland Avenue, Maitland, FL 32751.** Teachers are encouraged to copy whatever material in the booklet they need for educational purposes, and activities are written for a wide range of ages and multidisciplinary study areas. We have included a sample activity on the next page designed for elementary use, but many of the activities are suitable for middle school or even high school ages. Accompanying the booklet is a colorful 17"x22" poster depicting the five species of Sirenians and their ranges. The teaching guide also includes extensive background material, a resource list and information about class adoptions of manatees.

There is also a coloring book available, "Manatees and Dugongs," which teaches the life history of these animals. Designed for elementary level, this 28-page book has text in English and Spanish and includes a fold-out world map to study and color. Available for \$4.00, plus \$1.50 postage, from Center for Marine Conservation, 1725 DeSales Street, NW, Washington, D.C. 20036.

### *Answers for Marine Mammal Match-Up (page 8)*

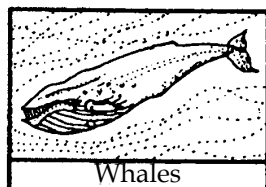
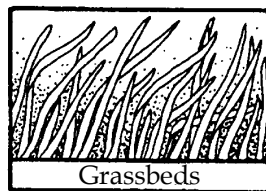
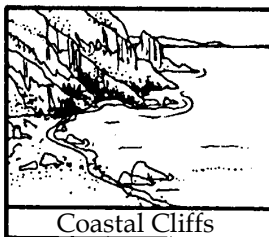
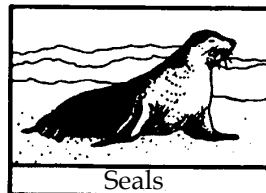
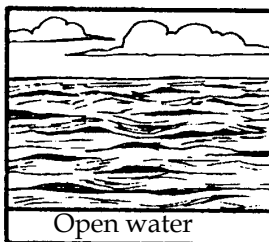
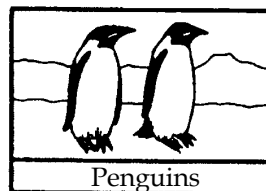
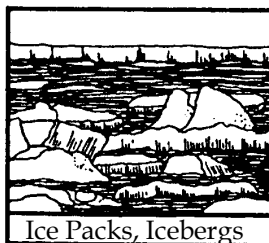
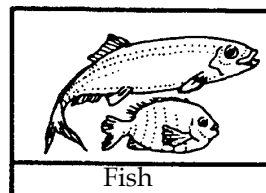
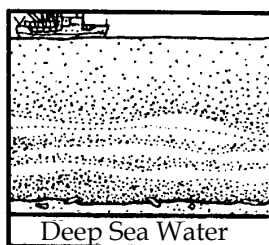
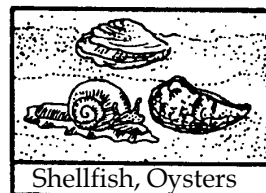
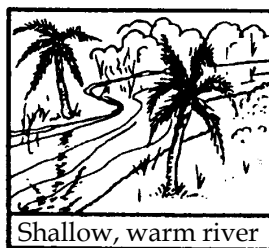
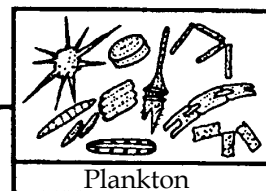
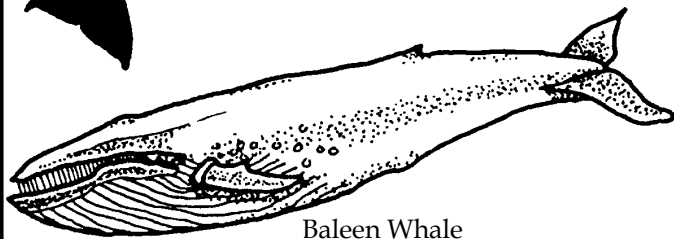
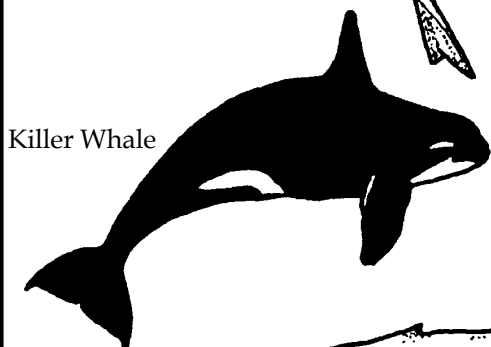
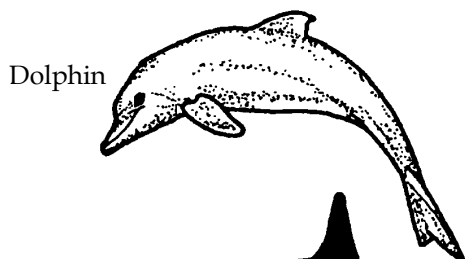
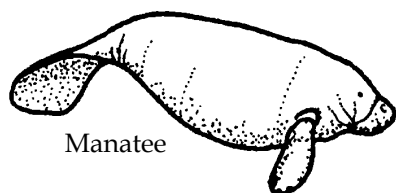
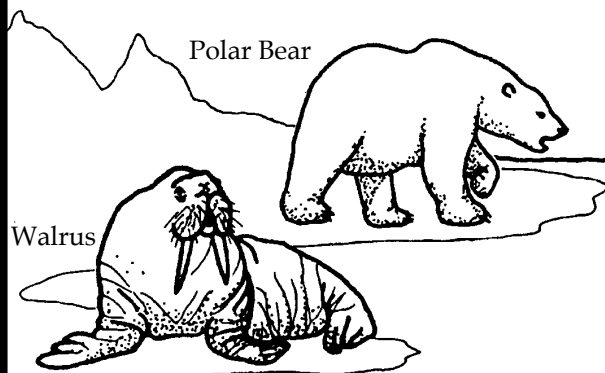
*Polar Bear -- ice packs, icebergs -- fish, seals; Walrus -- coastal cliffs -- shellfish, oysters; Manatee -- shallow, warm rivers, estuaries -- grassbeds; Sea Otter -- open water -- shellfish, oysters; Dolphin -- open water -- fish; Killer Whale -- deep sea water -- seals, penguins, whales; Baleen Whale -- deep sea water -- plankton.*



*Illustration by Laura Sartucci Wiegert from free booklet, "The West Indian Manatee In Florida," Florida Power & Light, P.O. Box 029100, Miami, FL 33102-9100.*

# Marine Mammal Match-up

Find the favorite food and habitat of these marine mammals and match them up by using different colored lines for each animal!



This activity from *Manatees -- An Educator's Guide* has been reprinted with permission from Save the Manatee Club.



# Water Resources. . .

## **Fresh Water**

Humor, science and kids -- a winning combination! In *The Magic School Bus at the Waterworks*, author Joanna Cole has created teacher Ms. Frizzle who leads her class on an extraordinary field trip to learn about water. The school bus soon "evaporates" into a cloud and the children "shrink" into raindrops. The rest of the story describes how water gets into our homes and buildings -- and how the children return to school through the faucet in the girls' bathroom! A 1987 Boston Globe-Horn Honor Book, this well-illustrated children's story is an excellent resource for elementary grades using Aquatic WILD activities ALICE IN WATER-LAND, WATER WINGS and AQUA WORDS. Thanks to Georgia's Project WILD for telling us about this book.

## **Wetlands America Poster**

Available free from Ducks Unlimited, this 14"x24" poster features a large photograph of a great blue heron and smaller photographs of a wood duck, muskrat, ring-necked pheasant and white-tailed deer. These are just a few of the species which can benefit from wetland conservation. The United States currently loses 1,200 acres of wetland habitat per day, and this poster highlights Ducks Unlimited's efforts to conserve wetlands nationwide. For the free poster, write Ducks Unlimited, One Waterfowl Way, Long Grove, IL 60047.

## **How Wet Is Our Planet?**

Did you know that water covers 70% of our earth's surface and that over 97% of that water occurs in the world's oceans? Do you know how much of that water is in polar ice or glaciers? Rivers? Ground-water? Atmosphere? This information as well as a variety of details about Utah's water supply (Did you know that Utah is the nation's second-driest state with 13 inches of average annual precipitation?) is found on a new "slide rule" of water facts produced by the Utah Division of Water Resources. To obtain your own "slide rule" with water trivia (How much water does it take to produce one serving of tomatoes? What percentage of Utah's water is used for agriculture and irrigation?), contact the Project WILD Office (801 538-4719).

## **Ocean Forest Poster**

Featuring the kelp forest communities of the Pacific coast, this unique poster from Center for Marine Conservation describes the intricate relationships and interdependencies of animals and plants within kelp communities. The poster has one sheet of educational information with a colorful acetate overlay depicting the ocean "forest." Measuring 24"x36", this poster is available for \$25 from the Habitat Conservation Program, Center for Marine Conservation, 1725 DeSales Street, NW, Washington, D.C. 20036 (202-429-5609).

## **The Gulf of Mexico: A Special Place**

From Center for Marine Conservation, this book for elementary grades teaches about the Gulf of Mexico through a variety of activities, including math, poetry and art. A teacher's guide offers resources, background information and classroom enrichment suggestions. Limited copies are available for \$2.00 from Center for Marine Conservation, 1725 DeSales Street, NW, Washington, D.C. 20036. (Limit one per order.)

## **"Water: The Resource That Gets Used & Used & Used & Used for Everything!"**

Colorful, 24"x35" free poster is designed with water information on the back. One poster is designed for elementary grades, and one poster is designed for middle school. Request in writing from U.S. Geological Survey Books and Open File Reports Section, Box 25425, Denver, CO 80225-0425.

# Resource Materials

## Available for Check-Out from Project WILD

### Videotapes

Title	Length
Owls	15 minutes
I Need The Earth; The Earth Needs Me	20 minutes
Trashing the Oceans	7.5 minutes
Yellowstone Fires: The Unfinished Song	20 minutes
Yellowstone Fires	20 minutes
Rain Forest Rap	6.5 minutes
The All American Bear	60 minutes
White Wolf	60 minutes
The Last Parable	30 minutes
The Bridge	30 minutes
Climb the High Winds	25 minutes
Miracle of the Scarlet Salmon	50 minutes
Poisoning of America	60 minutes
Blackened Feathers-Broken Chain	6 minutes
Arctic Refuge: Treasure of the North	30 minutes
Song Dog (life cycle of coyote pack)	27 minutes
Super Sense: Seeing Sense	30 minutes

### Available Correlations to Project WILD Activity Guides

Utah Science Core Curriculum, K-6, 7-8, 9-12  
 Cub Scout/Boy Scout Requirements  
 Girl Scout Program Activities  
 Silver Burdett & Ginn Science Horizons, K-6  
 Silver Burdett Social Studies Series, K-6  
 Holt Science Series, K-6  
 Houghton Mifflin Language Arts Series, K-6  
 Addison-Wesley Science Series, K-6  
 Scott, Foresman Science Series, K-9  
 Pathways to EE, a correlation of PLT and WILD

### Resource Files

(files contain videotapes and current articles and information)

The Yellowstone Fires of 1988  
 Alaskan Oil Spill  
 The Wolf  
 Rain Forests  
 North American Bears  
 Sea Turtles of the World  
 Endangered Species

### National Wildlife Week Slide/Tape Programs (programs are approximately 15 minutes in length)

Title  
 We Care About Eagles  
 This Is Your Land  
 Water: We Can't Live Without It  
 Soil: We Can't Grow Without It  
 Discover Wildlife In Your World  
 We Care About Clean Air  
 Forests Are More Than Trees  
 Predators! They're Part of the Picture  
 Earth Day, Every Day: You Can Make A Difference

### Other Slide Programs

Title	Length
Cats Over Borneo	15 minutes
What Bear Goes Where?	20 minutes
(with accompanying materials)	
Fragile Frontiers	15 minutes
America's Sea Turtles	15 minutes
Kemp's Riddleys	20 minutes

### Computer Resources

(all programs are compatible with the Apple series)  
 Biomes  
 Flyway  
 National Bison Range  
 Wetlands

### Other Materials

Replitracks. Set of 18 different tracks cast in durable rubber vinyl; can be used in identifying animal tracks, making plaster casts or for ink printing.

*To check out materials, please notify the Project WILD Office at least two weeks in advance of when materials are needed. Arrange dates for the materials to be picked up (or mailed) and returned by calling the Project WILD Office at 538-4720. Requested correlations will be mailed to you.*



## Utah's Project WILD is ready for ACTION!

**Utah's Project WILD has grant money available  
for school yard habitat improvement projects!**

There's growing interest among educators in Utah and throughout the United States to develop natural habitat areas on school grounds. With the assistance of the Ogden Nature Center, Project WILD is making funds available in the fall of 1991 for "school yard naturescaping projects."

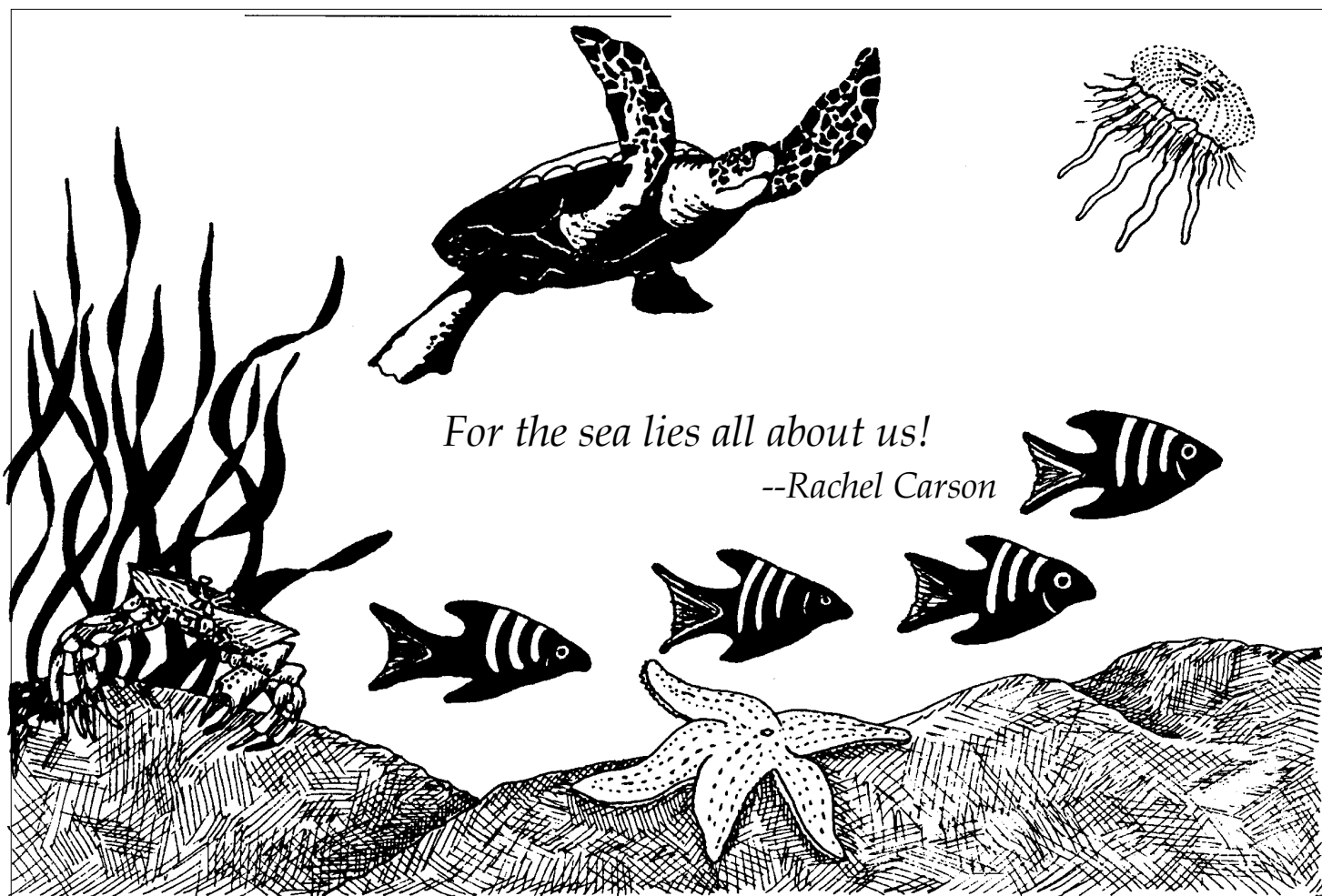
We plan to provide grants to teachers throughout Utah over a 2-year period. For the first year, there will be 5 grants for \$300 each, 5 grants for \$200 each, and 5 grants for \$100 each. All Project WILD teachers are eligible. Other teachers who express a sincere interest in developing natural habitat areas also are eligible even though they may not be trained as Project WILD teachers.

Here's what you must do if you're interested:

- **Request an application packet from Project WILD,  
1596 West North Temple, Salt Lake City, UT 84116.**
- **Complete the application form and return it to the  
Project WILD Office by October 31, 1991.**

We are looking forward to your proposals! When you request an application, we will include two new resources to assist you in planning your project. One resource is the recently published booklet, *Creating Landscapes for Wildlife*, from the Nongame Section of Utah's Division of Wildlife Resources; and the second resource is a correlation of Project WILD and Project Learning Tree activities with a variety of components found in outdoor classrooms. This resource was produced by Indiana's Project WILD.

Please contact us if you have any questions -- 538-4720 or 538-4719!! If you're looking for an action project for your students and school, **naturescaping is an ideal project which can have long-term positive effects for your students, school and wildlife.**



*For the sea lies all about us!*

*--Rachel Carson*